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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES Y.J. CHUNG and WINFRIED G. PAUL

Appeal 2009-007654
Application 10/667,955
Technology Center 1700

Decided: March 30, 2010

Before CATHERINE Q. TIMM, JEFFREY T. SMITH, and
JEFFREY B. ROBERTSON, *Administrative Patent Judges*.

ROBERTSON, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 13-23.¹ (App. Br. 2; Final Rejection (mailed May 2, 2008)). We have jurisdiction pursuant to 35 U.S.C. § 6(b).

We AFFIRM.

THE INVENTION

Appellants describe a process for improving impact performance of a thermoplastic molding composition. Claim 13, reproduced below, is representative of the subject matter on appeal.

13. A process for improving the impact performance of a thermoplastic molding composition comprising mixing polycarbonate resin, nanoclay and carboxylic acid, said nanoclay being present in an amount of 0.1 to 20 percent relative to the weight of the polycarbonate, said acid being present in an amount of 1 to 20 percent relative to the weight of the nanoclay, said nanoclay having an average platelet thickness ranging from 1 to 100 nm, and an average length and average width each independently one of the other ranging from 50 nm to 700 nm, said performance improved in comparison to a corresponding composition that contains no carboxylic acid.

THE REJECTION²

The Examiner relies on the following references in rejecting the claims on appeal:

Bixler	US 5,178,730	Jan. 12, 1993
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¹ Claims 1-12 have been canceled. (Appeal Brief at 2, (filed September 30, 2008) (hereinafter "App. Br.")).

² The Examiner withdrew the rejection of claims 13-15 and 20-23 under 35 U.S.C. § 102(e). (Examiner's Answer at 2, (mailed November 13, 2008) (hereinafter "Ans.")).

Vargas	US 6,602,966 B1	Aug. 5, 2003
Ross	US 6,610,770 B1	Aug. 26, 2003
Larson	US 6,858,665 B2	Feb. 22, 2005
Masuda	US 7,026,023 B2	Apr. 11, 2006
Guo	US 7,250,477 B2	July 31, 2007
Chan	US 2008/0004391 A1	Jan. 3, 2008
Liang	US 2008/0021138 A1	Jan. 24, 2008

The Examiner rejected claims 13-23 under 35 U.S.C. § 103(a) as being unpatentable over Ross in view of Bixler, Larson, or Masuda, with Vargas, Guo, Chan, and Liang submitted as evidence.

The Examiner found that Ross discloses a polymer composition including polycarbonate, montmorillonite or hectorite organoclay, and an organic compound, which may be an organic acid. (Ans. 3-4.) The Examiner found that Ross does not disclose the particle size of the organoclay, but that “‘organoclay’ is a synonym for ‘nanoclay’” citing Vargas, Liang, Chan, and Guo as evidence. (Ans. 4.) The Examiner also found that Bixler teaches the dimensions of hectorite, and Larson and Masuda display dimensions of fine montmorillonite. (*Id.*) The Examiner determined that it would have been obvious to use hectorite and montmorillonite in the sizes shown by the secondary references, since they are typical of organoclay. (*Id.*) The Examiner stated that the improved impact performance is inherent in the compositions. (*Id.*)

Appellants contend that Ross does not require the presence of an organic material. (App. Br. 9-10.) Appellants argue that the Declaration of Dr. James Chung (Declaration of Dr. James Y. J. Chung (June 11, 2007) (hereinafter “the Chung Declaration”)) demonstrates unexpected results.

(App. Br. 10-12.) Appellants contend that none of the prior art references disclose improving impact performance. (App. Br. 12.)

ISSUE

Did the Examiner err in determining that the claimed subject matter would have been obvious over Ross in view of the secondary references of record?

FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence.

1. Ross discloses polymer compositions including polycarbonate, an organoclay modified with an organic material that is a carboxylic acid. (Col. 5, l. 27; col. 8, l. 61-col. 9, l. 26, col. 10, l. 43- col. 11, l. 4; col. 11, ll. 38-55, claims 1 and 3.)
2. Ross discloses that the organoclays are montmorillonate and hectorite. (Col. 6, ll. 47-67.)
3. Vargas discloses montmorillonite and hectorite clays as examples of “organoclays or nanoclays.” (Col. 2, ll. 47-67.)
4. Larson discloses that montmorillonite clay has a thickness in the range of 1 to 20 nanometers, a length in the range of 50 to 500 nm. (Col. 5, ll. 12-18.)

PRINCIPLES OF LAW

As stated by the Supreme Court in *KSR*, “[i]n determining whether the subject matter of a patent claim is obvious, neither the particular motivation nor the avowed purpose of the patentee controls. What matters is the objective reach of the claim. If the claim extends to what is obvious, it is invalid under § 103.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007). It is well settled that “[m]ere recognition of latent properties in the prior art does not render nonobvious an otherwise known invention.” *In re Baxter Travenol Labs.*, 952 F.2d 388, 392 (Fed. Cir. 1991).

“[W]hen the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990) (citing *In re King*, 801 F.2d 1324, 1327 (Fed. Cir. 1986); *In re Ludtke*, 441 F.2d 660, 664 (CCPA 1971). “[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. . . . Whether the rejection is based on ‘inherency’ under 35 U.S.C. s [sic] 102, on ‘prima facie obviousness’ under 35 U.S.C. s [sic] 103, jointly or alternatively, the burden of proof is the same . . . (footnote omitted).” *In re Fitzgerald*, 619 F.2d 67, 70 (CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977)).

In order for a showing of unexpected results to overcome the teachings of the prior art, the results presented must be commensurate in scope with the claims. *See In re Kollman*, 595 F.2d 48, 55 (CCPA 1979).

ANALYSIS and CONCLUSION

Appellants acknowledge that all the claims stand or fall together. (App. Br. 3.) Accordingly, we confine our discussion to appealed claim 13, which contains claim limitations representative of the arguments made by Appellants pursuant to 37 C.F.R. § 41.37(c)(1)(vii).³

Ross discloses compositions including polycarbonate, organoclay, and carboxylic acid. (FF 1.) Thus, Ross clearly discloses compositions where the carboxylic acid is present. In addition, Ross discloses organoclays including montmorillonate and hectorite. (FF 2.) Vargas and Larson provide evidence that organoclays, particularly montmorillonate and hectorite, are nanoclays. (FF 3-4.) Therefore, Appellants' arguments that Ross along with the secondary references fail to disclose the claimed combination of ingredients absent hindsight are not persuasive.

Regarding Appellants' argument that none of the references disclose a process for improving impact resistance, we agree with the Examiner that the process only involves the mixing of the components. Ross discloses all of the components recited in the claims. Accordingly, Ross meets the recited "mixing" step and the improvement in impact resistance is obtained as a result.

Regarding Appellants' declaration evidence, we find the Chung Declaration unpersuasive for the same reasons articulated by the Examiner in the Answer. (Ans. 4-5.) Appellants' arguments that the case law cited by the Examiner is not applicable are unavailing. It is a well settled principle

³ Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2007).

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that in order for a showing of unexpected results to overcome the teachings of the prior art, the results presented must be commensurate in scope with the claims. *See In re Kollman*, 595 F.2d 48, 55 (CCPA 1979).

ORDER

We affirm the Examiner's decision rejecting claims 13-23 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. §1.136(a)(1)(v).

AFFIRMED

KMF

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